



CLIMEX®

Cooling Guide

Portable Air Conditioning - Cooling Guide

Portable air conditioning is the most flexible solution for all types of environment, providing you with all the benefits of a fixed system without the need for extensive capital outlay.

RVT has created this useful cooling guide to help you calculate an approximate cooling requirement in Btu/hr for your project based on the size of the area and how many people are present.

Calculating Cooling requirements for Air Conditioners

Take Room volume: LENGTH (m) x BREADTH (m) x HEIGHT (m)
in cubic metres and multiply by 150 to get the
air cooling requirement in Btu/hr.
add an additional 500 Btu/hr for each person
and computer in the room.

This will give an approximate cooling requirement in Btu/hr.
It may need to be increased in very hot weather, or where
sunshine causes heating.

Cooling calculations for Evaporatives

Calculate the floor area in metres and refer to the technical data.

USEFUL CONVERSIONS

Btu/hr to kW	kW to Btu
Btu / 3.412	kW x 3.412
Celsius to Farenheit	Farenheit to Celsius
C x 1.8 + 3.2	F - 1.8 + 3.2
Pints to Litres	Litres to Pints
P x 0.568	L / 0.568
US Pints to Litres	Litres to US Pints
P x 0.473	L / 0.473
Gallons to Litres	Litres to Gallons
G x 4.546	L / 4.546
Grains to Grams	Grams to Grains
G x 0.0648	Gr / 0.0648
Cubic Ft to Litres	Litres to Cubic Ft
Ft ³ x 28.317	L / 28.317
Feet to Metres	Metres to Feet
F x 0.3048	M / 0.3048
Sq Ft to Sq Metres	Sq Metres to Sq Ft
Ft ² x 0.0929	M ² / 0.0929
Cubic Metres to Cubic Feet	Cubic Feet to Cubic Metres
M ³ x 35.3	Ft ³ / 35.3



RVTGROUP™
Protecting long-term health on site



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There are three types available:

1 Evaporative Coolers

For open plan areas and congregational areas where windows are not accessible. These work by evaporating water into the air, thereby cooling it. The humidity caused is then taken away by the general airflow.

2 Standalone Mono Air conditioners

Free-standing Units for smaller offices which discharge hot air out of a 4" - 6" hose, which is directed out of a window or door, or into a ceiling void. Normally up to 12,000 Btu/hr cooling.

3 Refrigerative Split Coolers

For larger rooms with access to windows. More powerful units which have an internal (evaporator) unit and external (condenser) unit joined by a small flexible pipe 2.5m - 6m long. The external unit is usually hung out of a window or put in an outside corridor. Normally up to 18,000 Btu/hr cooling. The 22,000 Btu/hr unit can have up to a 30m long connecting hose.

